A Century of Women's Health
1900-2000

U. S. Department of Health and Human Services

A CENTURY OF WOMEN'S HEALTH: 1900–2000

Office on Women's Health
U.S. Department of Health and Human Services
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ABOUT THE COVER

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FOREWORD

In the 20th century, we witnessed the most dramatic improvements in women's health in human history. At every level, the quality of women's health care was enhanced and strengthened through advances in research, behavioral patterns, diet, pre- and post-natal care, new drug and surgical treatments, immunizations, and the general commitment of millions of Americans to lead healthier lives.

While there is no single accomplishment that stands out more than any other, perhaps the most important is the simple recognition that men and women have some fundamentally different health needs and that women's health needs should be pursued in their own right.

Socioeconomic concerns, such as poverty care and issues related to violence, factor into our approach to women's health. And we have come to see that extending life is not, in itself, sufficient: the longer women live, the more threatened they are by such conditions as diabetes, heart disease, and cancer. Duration of life and quality of life go hand in hand, which makes preventive care, more effective and immediate treatments, and access to health care all the more important.

By the turn of the next century, the challenges facing women in the arena of medicine will likely be different from those we are dealing with now. Technologies will have changed dramatically even as knowledge has increased substantially. My encouragement to those who might read this ten decades from now is to learn from the past, even as we are seeking to do now.

Consider the lessons learned, and taught, by previous generations. Ethical principles and enduring moral convictions transcend time. The passing of a century will not alter them.

Perhaps my granddaughter Sophie Ann, who will be 101 in the year 2100, will be able to read this message to you. If so, I love you, Sophie, and hope your 21st century has been a wonderful time for you and women throughout our great country.

Thank you, and God bless you.

Tommy G. Thompson
Secretary
Department of Health and Human Services

MESSAGE TO WOMEN OF THE FUTURE

The end of the millennium, the end of the century, and the 10th Anniversary of the Department of Health and Human Services (DHHS) Office on Women's Health (OWH) converge as a perfect time for the women of the Year 2001 to share with the women of the Year 2100 our struggles and accomplishments during the past century and our hopes for you. As we reflect on the changes that have occurred in women's lives during the 20th century, we are proud of our many accomplishments and hopeful that what remains to be done can be attained. This document highlights for you some of the major issues and improvements in the health of women in the United States during the past century. Its intent is to give you an idea of what life was like for women at the beginning of the 20th century and where we are at its end. Many women have been involved in this struggle for improved women's health. We may be introducing some of these women to you for the first time through this document, whereas others may be well known to you. The dedication of the Women's Health Time Capsule is a tribute to all women—past, present, and future—who are dedicated to improvements in women's health.

Let me take this opportunity to recap for you some of the activities that made it possible for the DHHS Office on Women's Health to celebrate a 10th anniversary. Whether we start with the women activists of the Progressive Era (1890–1930), the early 20th-century women doctors and scientists, the women-focused magazines that appeared at the beginning of the century, or the women who helped forge this country, their efforts contributed to the creation of the DHHS Office on Women's Health. However, I will limit my narrative to more recent events, particularly those related to DHHS, a Cabinet-level department within the Executive Branch of the federal government.

In 1983, the Assistant Secretary for Health created a Public Health Service (PHS) Task Force on Women's Health Issues. After two years of study, the Task Force issued a report on its findings and recommendations. In response, the Assistant Secretary for Health established a PHS Coordinating Committee on Women's Health Issues in 1986 to serve as a forum for intra-agency communications. The Coordinating Committee succeeded in implementing a number of the Task Force recommendations and increased public and Congressional awareness of, and interest in, women's health issues. Dr. Ruth Kirschstein, then Director of the National Institute of General Medical Sciences at the National Institutes of Health (NIH), a DHHS agency, co-chaired this Coordinating Committee with Assistant Secretary for Health Dr. James O. Mason.

Legislation had been introduced by members in previous sessions of Congress to establish Offices of Women's Health at the NIH and in the Office of the Assistant Secretary for Health (OASH) to serve as focal points for carrying out and supporting the Coordinating Committee's activities. In December 1990, Assistant Secretary of Health Dr. James O. Mason recommended to Dr. Louis Sullivan, Secretary of Health and Human Services, the establishment of an Office on Women's Health in the OASH. The Office of Research on Women's Health was established earlier that year at the NIH. By July 1991, the PHS Office on Women's Health had been established with three full-time employees. Dr. Agnes Donahue served as its first Director. Since then the Office has grown to 55 full-time employees (including one in each of the 10 DHHS regions) with an expanded mission to coordinate women's health efforts throughout the entire Department, not just the Public Health Service. Its

goals are to increase the public's and health care professionals' awareness of women's health issues, improve preventive health care for women, foster the careers of women in the health professions, and encourage partnerships to advance specific women's health issues. The DHHS Office on Women's Health is committed to improving the health of women across the life span with special attention to cultural diversity and eliminating disparities in health status. As you can see from the OWH 10th Anniversary Celebration and Time Capsule Dedication program enclosed in the time capsule, many of the individuals involved in the establishment of the Office on Women's Health participated in this ceremony and are still actively involved with women's health.

The DHHS Women's Health Time Capsule was dedicated December 3, 2001, and buried in May 2002 during National Women's Health Week, near the rose garden of the Lawton Chiles International House, on the campus of the National Institutes of Health. At the time of the dedication ceremony, Tommy G. Thompson was the 19th Secretary of the Department of Health and Human Services. Prior to his service in the Federal government, Thompson was Governor of Wisconsin, where he served an unprecedented four terms. As Governor of Wisconsin, he gained a reputation as a champion of women's health, and started one of the first women's health offices at the state level.

Let me end this message by saying that we, the women of the Year 2001, are proud of our accomplishments—a 30-year increase in the life expectancy of women in this century alone, major reductions in maternal mortality, introduction of women's health issues into the national health arena, and significant increases in the number of women in health professions—just to name a few. We hope by the time you open this time capsule you will have advanced this legacy to the point that our problems today are known only in your history books; that all women can get the quality mental and physical health services they need; that all women and their families are safe in their homes, their communities, and wherever they choose to work, play, or pray; and that all women and girls are respected, valued, and accorded the same rights in society as men and boys.

It is with great pleasure that I sign this message to you, the women of the 21st century, from all the women of the 20th century.

Wanda K. Jones, Dr.P.H.
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ACKNOWLEDGMENTS

The Department of Health and Human Services (DHHS) Office on Women's Health (OWH) acknowledges with deepest appreciation all of the individuals who have made the publication of *A Century of Women's Health: 1900–2000* a reality. The DHHS Time Capsule Planning Committee wanted a document to include in the DHHS Women's Health Time Capsule that would highlight and honor women's struggles and accomplishments during the 20th century. We hope the document and the annotated list of time capsule items will help the women who open the time capsule in 2100 and examine its contents, understand why these items were deemed important enough to be preserved.

Substance and clarity were given to the document by all those who drafted chapters and reviewed various drafts to help refine the contents. However, this booklet could not have been published without the assistance of Valerie Gwinner who wrote much of the document; Barbara James who edited the document and coordinated its production; Carol Krause who prepared the time line of significant women's health related events that appear in Appendix A; Barbara Disckind who also edited the document; Sandra Lowery who designed the cover and identified and obtained permission to use the photographs included in the booklet, and the members of the DHHS Women's Health Time Capsule Planning Committee who served as reviewers, collected and contributed items for the time capsule, and gave their unwavering support to this activity. The Planning Committee is listed on the following page.

The OWH also is deeply grateful to the following individuals for their review of the booklet: Joanne Grossman of MCP Hahnemann University, Victorian Harden of the National Institutes of Health, Suzanne Junod of the Food and Drug Administration, Deborah Maiese of the Health Resources and Services Administration, Jonelle Rowe of the DHHS Office on Women's Health, Ulonda Shamwell of the Substance Abuse and Mental Health Services Administration, Marcelle Steinbakken of the Food and Drug Administration, and Carol Weisman of the University of Michigan. OWH is extremely fortunate to have worked with all these outstanding individuals and is deeply appreciative to each of them for their important contributions.

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SUMMARY

The 20th century witnessed remarkable advances in women's health. The average life span for American women increased by more than 30 years. Improvements in sanitation practices, health care training, public health information, preventive health practices, medical treatments, and implementation of national public health policies greatly reduced rates of death, disease, and disability. Women gained greater knowledge and access to information about their health. Women's access to health care services was expanded through both the development of a public health care infrastructure and increased access to private, employer-based health insurance. Women slowly made inroads into male-dominated medical schools and medical professions. The female-dominated health professions such as nursing and midwifery were formalized and professionalized. The definition of women's health was broadened to include a vast array of social, economic, and medical factors affecting women's health and well-being. Women's health issues were more specifically integrated into health care training, public policy debates, health education programs, medical research, and clinical practice.

Many of the gains achieved in women's health can be attributed to the undying efforts of successive generations of women's health advocates. From the Progressive Era (1890–1930) through the 1990s, women maintained their historical presence at the forefront of health care reform. Even before they obtained the right to vote in 1920, women were spearheading legislative efforts to expand women's access to health services, products, and information. Women's health advocates fought to give women more voice and control over their own health care decisions. They pushed for improved training of health professionals and greater inclusion of women and women's issues in the health professions. They elevated women's health to the highest ranks of health policy and discussion.

Throughout the 20th century, the issues confronting women's health became as varied as the increasingly diverse population of American women. Disparities in the health outcomes and experiences of different groups of women were brought to light. The role that women played as health care providers and decision-makers for their families was recognized. Media and businesses catered to the market force represented by women's health consumers. The importance of women's life experiences and relations with others were integrated into women's health programs and policies.

In spite of 100 years of progress, many challenges remain to the advancement of women's health at the close of the 20th century. Universal access to quality health services remains an elusive goal. In the 1990s, one-fourth of all American women went without health insurance during all or part of the year. Even with health insurance, many continued to face health care barriers due to financial, cultural, social, or practical obstacles, including transportation and child care problems. Chronic illnesses and conditions continue to plague women, particularly in old age. Unhealthy personal behaviors such as smoking, poor nutrition, and sedentary living increased. Women remained major consumers of health care information, which became more widely available with the advent of electronic communications. However, the problem of ensuring truth and accuracy in that information persisted. Media and communications also played an

important role in the constant dissemination of idealized images of female beauty. Despite radical shifts in dress style and liberation from constricting clothing standards, women often remained prisoners of a stereotyped and largely unattainable vision of female physical perfection.

Women's health began the 20th century with the Progressive Era and ended with the most important advances in women's health the world had ever seen. The battles were hard fought, the victories were significant, yet by century's end the challenge was far from over. The 30 bonus years of life that women gained in this century put aging women at greater risk for chronic diseases, including heart disease and cancer. It is the lessons of the many trials, losses, and successes of women's health efforts that we must carry into the 21st century.

CHAPTER 1: SOCIAL AND CULTURAL FACTORS

It is difficult to understand the dramatic changes affecting women's health over the course of the 20th century without investigating the social and cultural context in which those changes occurred. Indeed, the very definition of what constituted women's health evolved over time. The goals and perspectives of women's health advocates changed to reflect shifting social mores and economic conditions. The welcome news is that at the end of the 20th century, women's health had advanced dramatically during the course of the previous 100 years. Women were enjoying a level of care that had nearly doubled their average life span over the course of the century. As both recipients and providers of health care, women were increasingly involved in every phase of medical research, practice, and knowledge.

Changing Definitions of Women's Health

In the early 20th century, women's health was primarily equated with maternal health and the role of women as mothers. The rates of maternal and infant deaths were high, and with the birth control movement of the 1920s, the definition of women's health began to include issues of reproductive health and control over the spacing (or timing) of each child's birth. By the 1960s and 1970s, reproductive health issues were at the center of a new wave of women's health activism. These issues included the controversial legalization of abortion, de-medicalization of pregnancy and childbirth, and the development of alternative obstetrics/gynecology clinics. From the time of the 1973 Supreme Court decision in *Roe* vs. *Wade*, abortion remained a deeply controversial issue. Proponents argued that the legality of access to abortion should, for the health of women, be sustained. Opponents argued that the unborn child has value independent of its mother and deserves the right to life under law, and that the health of women would not be compromised by curtailing unrestricted access to abortion on demand.

By the last decades of the century, the definition of women's health had expanded to include many other social, legal, medical, and economic issues. Topics such as stress, violence, poverty, and discrimination began to find their places within debates and discussions of women's health. Moreover, many issues, such as AIDS (acquired immunodeficiency syndrome), heart disease, violence, or occupational hazards, once associated predominately with men's health, joined the realm of women's health issues.

(Time capsule items: Bumper Stickers; Women's Health Buttons.)

Julia Lathrop (1858-1935), founder of Illinois Immigrant's Protective League, and the first woman member on Illinois Board of Charities, was appointed in 1912 by President William Taft as Chief of the newly organized Children's Bureau at the U.S. Department of Labor. Later, she became President of the National Conference on Social Work and advisory member of the Child Welfare Committee of the League of Nations. Photo courtesy of the Library of Congress. LC-USZ62-10274.

Women as Health Advocates

Throughout American history, women have been on the front lines of health activism and

reform. During the course of the 20th century there were three major periods of women's health activism: the Progressive Era (1890–1930), the 1960s and 1970s, and the early 1990s.[1] The Progressive Era gave rise to two separate movements: 1) the reformers who spearheaded the formation of government offices and policies to expand maternal and child health services and 2) the birth control advocates. The first group consisted largely of middle-class white women who came out of the Settlement House Movement and used their influence to affect public policy. The birth control advocates worked more at the ground level, exercising peaceful civil disobedience to overturn restrictions on the distribution of birth control information and devices.

The movement of the 1960s and 1970s was largely a grass-roots effort challenging the male-dominated and medicine-based system of health information and care.[2] It gave rise to the widespread development of women-based health clinics and self-health publications.

In the 1990s, women's health reached unprecedented levels of political and public clout. This was due to a combination of women's increased marketing power as health consumers; the success of disease-based groups like the breast cancer coalitions; the election and appointment of a critical mass of women in Congress and the federal government; and the increasing number of women in medicine. This era brought to light long-standing gender/sex inequities in clinical research and practice. Slowly, the scope of women's health was also expanded to incorporate issues of racial and social diversity.

Race, Racism, and Diversity

In the early 20th century, the term *race* was associated with birth lineage, and not physical features as it is today. For example, there were references to the "Irish race" or "Italian race," and much discrimination followed those "racial" lines. Even the Progressive Era reformers, many of whom were involved in the Settlement House Movement that sought to better the lot of immigrant and poor families, were subject to their era's views of racial differences. Many of their efforts to promote better health, education, and living conditions for immigrant and poor families were based on encouraging different races to assimilate with the practices, styles, and behaviors of the larger culture. Those who could not or did not assimilate into the dominant culture were left out of many Progressive Era and New Deal social policies, such as Social Security, widows pensions, and unemployment compensation.[3]

By the 1970s and 1980s, women of color and older women were receiving a significantly higher level of care due to advances in medical practice. Moreover, improvements in the kind and quality of research had made clear the need to focus on health needs unique to women and ailments affecting women differently than men.
(Time capsule item: Initiative to Eliminate Racial and Ethnic Disparities in Health.)

Women as Health Care Professionals

It was not until the mid-19th century that the first female student in the United States was admitted to a male medical school and graduated to become a physician. Later, women created their own medical schools and women's hospitals to train and practice as physicians. However,

they often had difficulty in being accepted as true professionals by both male physicians and patients of both genders. In frontier and rural environments, however, women were more likely to be accepted, since physicians were in scarce supply. Women physicians during the late 19 and early 20 centuries were increasingly challenged by so-called "heroic" medical practices that relied on purgatives, bloodletting, and other extreme procedures, such as "Battey's operation." This surgery removed a woman's ovaries, not only for medical reasons, but as an alleged cure for psychological ills, real or imagined, including nymphomania, epilepsy, and neurasthenia.

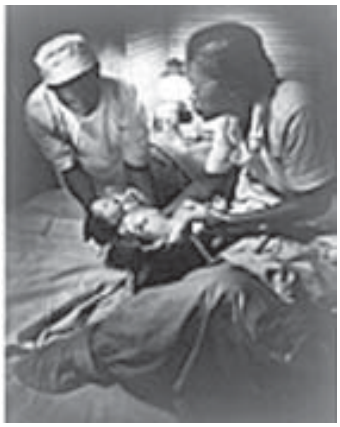
Elizabeth Blackwell (1821-1910), first woman in the United States to be trained in a medical school, founded the New York Infirmary for Women and Children and aided in the creation of its medical college for women in 1868. Pictured, a newspaper illustration of the college's anatomical lecture room. Photo courtesy of the Library of Congress. LC-USZ62-2053.

In 1900, 6 percent of physicians were women. Although women were discouraged from practicing medicine during World War I, in World War II women were recruited and trained as doctors. However, any progress in promoting more women to become physicians had all but disappeared by 1960, when only 7 percent of physicians were women. This was due largely to narrow quotas that restricted women's admissions to all but the women's medical schools. A gender discrimination suit brought against some medical schools in 1970 by the Women's Equity Action League opened the doors for female admissions into medical schools. By the year 2000, nearly 46 percent of new medical school enrollees were women. In the 1990s, women's health issues began to be included in medical school curricula and clinical competencies.[4, 5]

(Time capsule item: Journal of the American Medical Women's Association Supplement: Cultural Competency and Women's Health in Medical Education.)

Two young nurses, Lillian Wald and Mary Brester, created the Henry Street Visiting Nurse Service, which became the major model for visiting nursing in the United States. Pictured, a nurse from New York City's Henry Street Visiting Nurse Service taking the temperature of a sick little girl seated on a woman's lap. Photo courtesy of the Library of Congress, LC-USZ62-97076.

The first nursing schools, formed in the late 1800s, included both men and women. Men dominated the field in the South and in the military. In the early 1900s, there was a push to professionalize the field, efforts that were often led by women who were also active in the suffragette movement. Over the course of the 20th century, nursing became professionalized and a predominately female field. As such, it retained less status and lower pay than other male-dominated medical professions.



The profession of nurse-midwifery was established in the United States in the early 1920s by Mary Breckinridge, a pioneering nurse who founded the Frontier Nursing Service (FNS). The FNS provided family health services to isolated areas in the Appalachian mountains by sending public health nurses to their patients by horseback. Pictured, a nurse-midwife holding a newborn baby in 1951. Photo courtesy of the Library of Congress, LC-USZ62-1211893.

The training and practice of midwifery was also becoming more professionalized and regulated. However, with the shift from home births to hospital deliveries during the first half of the century, the role and status of midwives decreased, especially among white women. Births attended by midwives dropped from 40 percent in 1915 to 11 percent in 1935.[6] Midwifery, however, experienced a rebound in the 1970s, and training was further expanded and formalized.

Women's Employment and Health

In 1900, women made up 18 percent of the paid labor force. By 1950, they represented 30 percent. By the late 1990s, nearly one-half (46 percent) of the labor force was female.[7] Increasing proportions of women with small children joined the labor force, swelling the ranks of those contending with both work and family pressures. This dual role decreased women's leisure time, increased their level of stress, and raised rates of work-related injuries. Those factors were moderated by increases in women's incomes, independence, access to health insurance, and for some, job satisfaction and self-esteem.

During this time, many women were also adjusting to a new demand on their time. As the population aged, many women found themselves also serving as the primary caregivers for their elderly parents, older family members, elderly neighbors without family or family members living nearby, and children with severe disabilities. The need for day care for the elderly, home help, and quality nursing homes to help sustain and support the work of overburdened caregivers was a need that had reached national attention by the end of the century.
(Time capsule items: About Carpal Tunnel Syndrome; Map of National Centers of Excellence in Women's Health and National Community Centers of Excellence in Women's Health.)

Other Social Determinants of Health

Over the course of the century, women remained more likely to live in poverty than men. Their earnings remained significantly lower than those of men not only in the labor force but also from other sources such as rents, investments, or pensions.[8] Women were also more likely than men to be victims of child abuse, domestic violence, and gender discrimination, problems that were increasingly recognized as public health issues. Increased numbers of women headed households during the second half of the century contributed to higher rates of female and child poverty and to rising rates of women and children without access to health insurance.
(Time capsule item: Ms. Magazine devoted to domestic violence.)

Women's Access to Health Insurance

In the 19th century, little health insurance was provided by employers. Mutual Aid Societies, some labor unions, fraternal associations, and occasionally individual employers provided paid sick leave for workers.[9] In the early decades of the 20th century, some health reformers and reform-minded legislators advocated for the passage of legislation to create a national health insurance plan. Their repeated attempts were unsuccessful. Instead, backers of a private, employer-based system of health insurance prevailed. This system was argued to be more in keeping with the American values of freedom and private enterprise, and, in light of substantial difficulties in the quality of and access to care in countries that provided government-run health care systems, more effective. In 1965, legislation was passed as part of President Lyndon B. Johnson's War on Poverty Initiative to provide a national health plan for the elderly, *Medicare*, and a state-based plan for the poor, *Medicaid*.
(Time capsule items: Medicare and You; Medicaid brochure.)

As women increasingly entered the workforce in the second half of the century, they received health insurance coverage through employers. By 1997, 67 percent of women working full-time, year-round obtained health coverage through their jobs.[10] However, many employed women or women living in a household with at least one full-time worker remained uninsured or under insured. At the end of the century, more than 25 percent of American women (many of them minority women) did not have regular access to health insurance.[11]

The rising cost of health care near the end of the century caused the health insurance industry to examine other methods of delivering and paying for health care. Managed care program such as health maintenance organizations (HMOs) surfaced as an alternative to the preferred provider system of care.
(Time capsule item: Federal Employees Health Benefits Plans booklet.)

During the 20th century, health care advocates (many of them women) did much to improve and advance women's health. They expanded women's health care services, inserted women's issues into health care training, forced institutional shifts towards women-centered services, and increased women's abilities to access health information and knowledge. The term *women's health* eventually became part and parcel of mainstream political, economic, and medical discussions. Although still largely over-represented in the lower pay scales and ranks, women continued to enter the medical and health professions and other careers in increasing numbers. However, many working women

remained without access to health insurance or were under insured. In the face of rapidly increasing health care costs and continued lack of access to care and health coverage for all Americans, the challenge of ensuring women's access to quality health services remains. It is a dilemma that will continue to follow women's health reformers into the 21st century.

CHAPTER 2: PREVENTIVE HEALTH

In 1900, 30 percent of infants in America's major cities died before their first birthdays.[12] The average life expectancy for an American woman was 48.3 years (48.7 years if she was white and 33.2 years if she was Black).[13] Infectious diseases, including pneumonia, influenza, tuberculosis, and syphilis, were the leading cause of death for men, women, and children.[14, 15] The maternal mortality rate was 6–9 deaths per 1,000 live births.[16] Nearly all births (90 percent) took place at home. Some were unattended; others were attended by midwives or doctors who were often poorly trained. In 1900, only 10 percent of the nation's physicians attended college. Most went directly to special medical training institutions. A 1910 report on medical education found that the vast majority of these institutions offered substandard training.[17, 18]

Many of the deaths that occurred early in the 20th century were *preventable*. Crowded housing, poor hygiene and waste control, and contaminated food and water supplies were major contributors to the spread of infectious diseases and deaths from infection.[19] Many maternal deaths were associated with poor obstetrical practices, including the lack of basic hygiene, the overuse of surgical interventions—induced labor, forcep deliveries, episiotomies, and cesarean deliveries—and the lack of training for health care providers.[20] An estimated 40 percent of maternal deaths were caused by birth-related infections.[21] Thus, key preventive health practices in the early years of the 20th century involved such basic measures as hand washing, the sterilization of medical equipment, proper ventilation, safe food storage and preparation, and access to a safe water supply.
(Time capsule items: forceps; Nutrition and Your Health: Dietary Guidelines for Americans.)

In the first decades of the century, the federal government and public health departments across the country began to institute preventive health measures. They included health education programs, visiting nurses, improvements in sanitation and hygiene, better housing conditions, water chlorination, organized solid waste disposal, safer food and milk handling practices, improved animal and pest control, the expansion of disease control programs, and the creation of a public health care infrastructure that increased access to health care services for millions of people.

The results of these efforts could be measured within a few short decades. There were steep declines in deaths from infectious diseases, maternal

Post World War II witnessed monumental technology resulting in the emergence of vaccines still in use today. Pictured is an early 1960s photograph of a school nurse placing vaccination drops in the mouth of a young girl sitting in her New Mexico classroom. Photo courtesy of the Parklawn Health Library, Program Support Center, Department of Health and Human Services, Rockville, Maryland. Call number WS 135 AN5 No. 1.

mortality, and infant mortality. For example, deaths from tuberculosis dropped more than fourfold from 1900 to 1940, even before the introduction of antibiotics.[22] Maternal mortality plummeted from 600–900 deaths per 100,000 live births in 1900, to 11 per 100,000 live births among white women and 30 per 100,000 live births among non-white women in 1940.[23] The infant mortality rate dropped from 146 per 1,000 live births in 1900 to 34 per 1,000 live births by white women and 49 per 1,000 live births by non-white women in 1940.[24] These improvements were further accelerated during the 1940s and 1950s with the development of antibiotics, improved medical practices, the establishment of national vaccination programs, and the creation of qualification guidelines for physicians.

Emphasis shifted during the latter part of the century to an increased focus on the roles of individual health behaviors and social determinants of health on the health status and outcomes of American men, women, and children.

Major Health Threats at the End of the 20th Century

By the end of the 20th century, the average woman could look forward to a far longer and healthier life than her early-century counterpart. Her life expectancy at birth was about 80 years—a gain of more than 30 years compared to 1900, which was largely due to improved public health measures.[25] She was far less likely than her Progressive Era counterpart to die at a young age from infections or infectious diseases. She was far more likely, however, to die from a chronic disease, particularly heart disease, stroke, or cancer in spite of major advances in the diagnoses and treatment of these diseases. High blood pressure was recognized as a major risk factor for heart disease, the leading cause of death for all women. Tools for the diagnosis of this disease were readily available and screening for this disease was offered at health fairs in shopping centers and churches. Blood pressure machines were located in many supermarkets, drug stores, and other public buildings. People could use these machines free of charge.

An ultrasound bone density measuring device provides a precise quantitative assessment of skeletal status, information particularly useful for identifying patients at risk for developing osteoporosis and for assessing their risk of fracture. Pictured, a young woman taking a bone density test. Photo courtesy of the Indiana University School of Medicine Center of Excellence in Women's Health, Indianapolis, Indiana.

The pap smear was available to detect abnormalities before they developed into cancer. This technology came into common usage after World War II and helped reduce cervical cancer deaths in the United States by 70 percent, making it one of the most effective cancer-screening tools known to medicine.[26]

As the population aged, osteoporosis, characterized by low bone mass and deteriora-

tion of bone tissue, became more prevalent. Four times as many women as men over age 50 were more likely to suffer an osteoporosis-related fracture. Bone density measuring devices were available to assess bone mass.
(Time capsule items: Healthy Heart Handbook for Women; Women and Smoking: A Report of the Surgeon General; Surgeon General's Report on Smoking and Health; Women's Guide to Breast Care; Mammogram; The Older We Get, the More We Need a Mammogram; How to Do a Breast Self-Exam shower card; Sunblock cream.)

Jeanne Louise Calment (1875-1997), at the age of 122, was the oldest fully authenticated human being that has ever lived. She attributed her longevity to olive oil, port, and chocolate, although her genes may have contributed to her longevity as her father lived to the age of 94 and her mother to the age of 86. Photo by N'Geen Tien-Gamma Liasion, courtesy of www.wowzone.com.

As shown in Table 1, the major causes of death for women at the beginning of the century were infectious diseases. By the end of the century, the major causes of death were chronic illnesses.[27] While much changed in women's health during the 20th century, one important factor did not: the major causes of death and disease remained largely preventable. By century's end, public health experts had a three-pronged approach to prevention. First, they focused on *public health interventions*, including safe food, clean water, and sewer systems, and the control of infectious diseases. Second, they began to consider *social and economic factors*, including poverty, access to health care, and cultural obstacles to good health. Finally, they began to focus on *individual* health practices and choices. In the early 1990s, a landmark study by McGinnis and Foege demonstrated that fully 50 percent of the actual causes of death in the United States were attributed to behaviors such as smoking, poor diet, lack of exercise, alcohol and drug use, unsafe sex, use of firearms, motor vehicle crashes, pollution, and infectious agents.[28] It is these behavioral factors that distinguish women of the late 1990s from those of the Progressive Era. It is also these factors that will continue to pose challenges for women's health in the 21st century.

Table 1. Mortality Trends in Women: 1900 and 1990

Leading Causes of Death	
1900	1990
Tuberculosis	Cardiovascular Disease
Syphilis	Cancer
Pneumonia	Stroke
Influenza	Diabetes

CHAPTER 3: QUALITY OF LIFE

Advances in women's health over the course of the 20th century not only prolonged the life span, they also did much to improve women's quality of life. Some of the most important advances improved women's lives by offering them a wider range of accepted medical products.

Menstrual Products

The 20th century brought the development of two products that revolutionized the lives of American women: the disposable sanitary napkin and the tampon. Prior to World War I, women wore reusable sanitary pads made from cotton, or they fabricated their own. After World War I, new disposable pads were manufactured from materials and techniques used to make war bandages. These pads were effectively marketed and commercialized in the 1920s.[29] Various forms of tampons were also available in the 1920s and 1930s, although they were not widely used until the 1940s.
(Time capsule items: Maxi pad; Sanitary belt; and Tampon.)

The styles and brands of menstrual products varied over the century to reflect changing clothing styles. However, many themes surrounding these products did not change. Menstruation remained a source of embarrassment, and fears about the hygiene and safety of pads and tampons persisted. Concerns that tampons could compromise a girl's virginity lasted until the end of the century. Worries about tampon safety were aggravated in 1980 when 813 cases and 38 deaths from toxic-shock syndrome were linked to one type of super-absorbent tampon.[30] In the 1990s, false rumors, spread largely through the Internet*, advanced fears that tampons contained asbestos and dioxin.

Similar technologies to those used for menstrual pads and tampons were also applied in the development of disposable adult diapers and special pads to treat incontinence. That market proved, especially among women, to be as large as the one for menstrual products.
(Time capsule item: Urinary Incontinence in Adults.)

Contraception

In the early 20th century, common birth control methods included coitus interruptus, condoms (including one that resembled a small cap made of rubber developed by Charles Goodyear), the rhythm method, early versions of the diaphragm made from gut (1920s) or polyethylene (1960s), extended lactation, abstinence, abortion, and surgical sterilization.[31] By the 1960s, the birth control pill and intrauterine devices (IUDs) had been introduced. The IUDs lost popularity when one version, the Dalkon Shield, was associated with uterine infections in the early 1980s. The birth control pill was enormously popular due to its effectiveness and ease of use. However, early versions of the birth control pill containing high estrogen levels were associated with increased risks of blood clots, heart disease, and strokes. Women's health advocates brought these dangers to public attention, which helped boost the popularity of barrier contraceptives such as the diaphragm. By the 1980s, lower-dose estrogen pills were widely in use. Male condoms became more popular with the onset of

*An electronic communications network that connects computer networks and facilities around the world.

In the early 1980s, the Dalkon Shield, a version of an intrauterine device (IUD), was associated with uterine infections and the IUD lost popularity. Photo courtesy of the Food and Drug Administration History Office, Department of Health and Human Services, Rockville, Maryland.

the AIDS epidemic. In the 1990s, two new, long-lasting reversible contraceptive methods were introduced: injectables (Depo Provera) and implants (Norplant). The female condom was also introduced as a new barrier method controlled by women that could help reduce the transmission of sexually transmitted diseases. By the end of the century, the most commonly used forms of contraception in the United States were surgical sterilization, the birth control pill, and the male condom.[32] (Time capsule items: Oral contraceptive pills; Selection of male condoms; Female condom, information package, and picture book; What Everyone Should Know About AIDS; What Everyone Should Know About Sexually Transmitted Diseases.)

During the first half of the century, contraceptives were not widely available to women, particularly if they were poor or unmarried. Margaret Sanger set up the first birth control clinics in the 1920s and 1930s, in flagrant opposition to laws forbidding the distribution of contraception and contraceptive information. In 1965, a Supreme Court decision (*Griswold vs. Connecticut*) legalized birth control for married couples. Federal funds were made available for family planning through the Office of Economic Opportunity. In 1967, family planning was included among the services provided to women receiving public assistance.

In 1970, Title X of the Public Health Service Act authorized public funding for family planning services.[33] By century's end, however, the public remained deeply divided over how much the federal government should be involved in the funding of family planning services, fueled by the debate over abortion. In some cases, protests at family planning clinics became violent, and, in a few cases, some physicians who provided abortion services were murdered.[34] In other cases, pro-life protesters were physically brutalized and incarcerated. Although extreme violence on either side of this issue was rare, it represented the level of activism and emotion that surrounded abortion. Nonetheless, at the end of the century, more than 1 in 5 women still depended on publicly funded sources for contraceptives and family planning, particularly women who were poor, young, or unmarried.[35]

Eugenics

Efforts to advance birth control were tempered by the extreme form of population control espoused by the American eugenics movement, popular from 1900 to 1940. Proponents included presidents, Supreme Court Justices, and other influential people, including some in the birth control movement. They advocated for control of "inferior races" (Italians, Eastern European Jews, Asians).[36] They successfully lobbied for laws to separate racial/ethnic groups, restrict immigration from Asia and

southern and eastern Europe, and sterilize the "genetically unfit."[37] Laws restricting immigration were passed in the 1920s. By 1932 laws that mandated compulsory sterilization for the "feeble-minded," "criminally insane," and "physically defective" had been passed in 27 states. Individuals deemed mentally ill or retarded were still being sterilized without consent in the United States until the mid-1970s, including many poor and minority women. These abuses left a lasting legacy of mistrust of contraception. This was particularly true among many minority women and men, who often regarded birth control as a form of ethnocide or race suicide.[38]

Infertility

In the last three decades of the 20th century, the number of women and couples seeking fertility treatment increased and became a billion dollar industry. A contributing factor was that as the post-World War II baby boom generation came of age, they were more likely than their predecessors to delay childbearing, thus lowering their chances of becoming pregnant. At the same time, procedures and technologies to treat infertility improved and more couples sought medical help. Greater numbers of physicians offered infertility services. Fewer infants were available for adoption due to the legalization of abortion in the 1970s. All these factors combined to increase the public's awareness of infertility and the medical profession's treatment of infertility, even though actual rates of infertility did not increase substantially.[39, 40]

"We're Having a Baby!" Photo courtesy of lamazevideo.com.

The most commonly used treatments for infertility were fertility drugs that sometimes resulted in multiple births and surgical procedures. Other assisted reproductive technologies, such as in vitro fertilization, were less commonly used, although they garnered much public attention. In the late 1990s, the first experiments with animal cloning led to discussions of human cloning, which the overwhelming majority of Americans found morally wrong.[41]

Menopause

In *Beautiful Womanhood: Guide to Mental and Physical Development*, published in 1904, the authors (all doctors) reassuringly explain that "menopause is natural (...) not to be dreaded as something terrible and fatal," and that "few women die from these [menopausal] symptoms."[42] In spite of these comforting words, it took the better part of the century for women to discuss menopause openly. By the 1990s, women were demanding more research and treatments regarding "the change." Large-scale research efforts (starting with the massive Women's Health Initiative described in Chapter 4) were investigating the health effects of menopause, female hormone replacement therapies, alternative and complementary therapies, and diet and exercise on the post-menopausal portion of women's lives.[43, 44]
(Time capsule items: What Every Woman Should Know About Menopause; Menopause-Journal reprints; *Beautiful Womanhood: Guide to Mental and Physical Development*.)

Women with Disabilities

In 1999, 24 percent of adult American women were living with disabilities.[45] Thanks to advances in medicine and technology, many women with disabilities were able to survive and participate in life activities at rates that would have been impossible in earlier generations.
(Time capsule item: Women with Disabilities.)

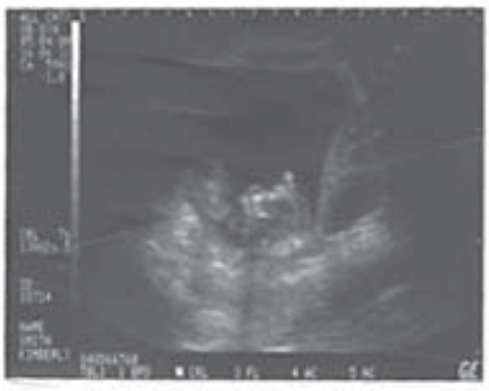
Despite the passage of the Americans with Disabilities Act of 1990, women with disabilities continued to face both physical and social barriers to health care and to activities of daily life. Stock photo courtesy of SOZA, Inc., Fairfax, Virginia.

The passage of the Americans with Disabilities Act in 1990 prohibited discrimination in employment, transportation, telecommunications, and public accommodations on the basis of disability.[46] By the end of the 1990s, nearly 70 percent of working-age women with a non-severe disability were in the work force, as were 25 percent with a severe disability.[47] Nonetheless, one-third of women with disabilities lived below the poverty level in the 1990s.[48] Women with disabilities continued to face both physical and social barriers to health care and to activities of daily life. These barriers ranged from the lack of handicap-accessible medical examining rooms to the lack of sex education for young women who are disabled.

The 20th century brought many advances in safety and comfort that improved women's health and quality of life. The challenge for the 21st century will be to continue to expand our understanding of the many ways in which women define and experience quality of life.

CHAPTER 4: DIAGNOSIS AND TREATMENT

Throughout the 20th century, major advances in diagnosis and treatment of diseases led to dramatic reductions in women's rates of morbidity and mortality. The first half of the century brought great strides in understanding the structure, function, and chemistry of living organisms. With ensuing decades, new drugs, chemotherapy treatments, and radiation were used to treat cancer and other diseases. Many viral and parasitic diseases that had plagued people for centuries were rarely seen, and bacterial infections were conquered through the advent of antibiotics in mid-century. Surgical techniques improved with better control of shock, the use of antibiotics, and the use of blood transfusions. Imaging technologies starting with X-ray and later including ultrasound, computed tomography scanning, positron emission tomography, and magnetic resonance imaging offered new ways to see inside the body. By the end of the century, hundreds of complex machines, drugs, and procedures had been developed to diagnose and treat patients. (Time capsule item: Alzheimer Disease: Unraveling the Mystery.)



The ultrasound has become a standard procedure used during pregnancy. It can demonstrate fetal growth and can detect increasing numbers of medical conditions. Ultrasound does not produce ionizing radiation and is considered a very safe procedure for both the mother and the fetus. Photo courtesy of Kimberly James, Burke, Virginia.

Recognizing Sex and Gender-based Differences

In spite of these remarkable advances, it took the better part of the 20th century for medical researchers, practitioners, and policy makers to directly address the issue of sex-based and gender-based differences in the diagnosis and treatment of disease. Throughout most of the century, medical research and practice were based on an andro-centric view of science. The male model was the norm, and female variations were seen as anomalies. Joined to this practice were fears regarding the effects of clinical trials on women of childbearing age. The tragedies linked to the use of diethylstilbestrol (see this chapter's section on "Hormone Therapies") and thalidomide in pregnant women in the 1950s and 1960s led to regulations in the 1970s that restricted the testing of new treatments in women of reproductive age.[49] Ultimately, this led to the widespread exclusion of women of all ages from clinical trials. Thus, women continued to use medical treatments and techniques that had been tested solely on men.

Public attention was drawn to the issue of gender disparities in research by a 1990 General Accounting Office report. This study brought to light the vast under-representation of women in federally funded clinical trials. As a result, the Public Health Service's Coordinating Committee on Women's Health as well as the Food and Drug Administration (FDA) and the National Institutes of Health (NIH) changed their policies to promote the inclusion of women in population-based studies. The

NIH created the Office of Research on Women's Health and appointed Dr. Ruth Kirschstein as its inaugural Director.

In 1991 the NIH launched a landmark research effort called the Women's Health Initiative, spearheaded by the first female director of the NIH, Dr. Bernadine Healy. This 15-year, $628,000,000 prevention study included over 65,000 women in a controlled, randomized clinical trial of diet modification, calcium and vitamin D supplements, and hormone therapy. Another component, an observational study, looked at predictors of disease in nearly 100,000 women. The initiative also included a study of community-based programs aimed at promoting healthy behaviors among women.[50]
(Time capsule items: What's So Special About Women's Health?; NIH Office of Research on Women's Health 10 Anniversary Program and Awards Book; Women's Health Initiative - English and Spanish versions.)

Ruth Kirschstein, M.D., (1926-) appointed Acting Director, National Institutes of Health (NIH), U.S. Department of Health and Human Services on January 1, 2000. Dr. Kirschstein was instrumental in changing NIH policies to promote the inclusion of women in population-based studies and in the creation of the Office of Research on Women's Health at the National Institutes of Health, Bethesda, Maryland. Photo courtesy of Director's Office, National Institutes of Health, Bethesda, Maryland.

Other research during the 1990s also revealed gender-based differences in other areas. They included health care use and costs; the probability of receiving major therapeutic procedures in acute care settings; and the likelihood of receiving major diagnostic procedures.[51, 52] Studies also revealed gender-linked differences in patient satisfaction and communication with physicians.[53, 54] An increasing body of evidence emerged that showed sex-based differences in disease risk, disease progression, treatment responses, and outcomes. An Institute of Medicine report concluded that "every cell has a sex" and that research should look at sex-based differences starting at the cellular level.[55]

Bernadine Healy, M.D., (1944-) is a cardiologist and health administrator who was the first woman to head the National Institutes of Health (NIH), U.S. Department of Health and Human Services, from 1991 to 1993. As the Director of NIH, she was instrumental in the launch of the Women's Health Initiative. Dr. Healy is currently the Director of the American Red Cross. Photo courtesy of the National Institutes of Health, Bethesda, Maryland.

Another trend reflected changes in the level of attention to gender-based differences in care. In the early 1900s, many women received health services from midwives or women's hospitals. However, during the first half of the century, medical practice, including obstetric and gynecological care, became dominated by male practitioners. In the 1970s, women turned

again to female-dominated women's health centers in reaction to a male-dominated medical system that they saw as degrading and condescending. In the 1980s, facing an increasingly competitive health care environment, mainstream health centers created special women's services to tap the women's health market. Some were oriented toward women in name only. Others truly sought to be women-centered and women-friendly.

Reproductive Health Issues

Areas that had traditionally been the domain of women's health also saw major advances in detection and treatment. Improvements in prenatal care and obstetrics in the first decades of the century dramatically reduced maternal and infant morbidity and mortality. At the same time, as diagnostic and treatment tools became more sophisticated, pregnancy and childbirth became increasingly medicalized, which presented both improvements and new challenges. In 1900, 90 percent of all births occurred at home. By 1950, 90 percent of all births occurred in the hospital. Surgical procedures such as cesarean births, episiotomies, and hysterectomies became far safer, but many believed they were ultimately overused by the latter half of the century.[56] This prompted a movement in the 1970s to return to more natural childbirth methods and settings.
(Time capsule items: Sonogram of a fetus; Be Good to Your Baby Before It Is Born; Pregnancy Calendar.)

Starting in the 1950s, advances in genetics, prenatal testing, and imaging technologies led to improved methods for testing the level of risk that a couple might have a child with a particular inherited condition or anomaly. Discovery of the genetic mutations (BRCA1, BRCA2) in the 1990s that were believed to predispose women to breast and ovarian cancer, and the development of related genetic tests, prompted significant ethical concerns. These included issues such as abortion, selective breeding, unequal access to medical information and treatments, and stigmatization/discrimination against individuals at risk of inherited conditions. Genetic screening also pushed the boundaries of social and cultural definitions of quality of life, risk assessment, and health. The fear was raised that technological advances would foster intolerance for less than perfect people. In the 1970s, the National Academy of Sciences and ethicists nationwide looked into issues of genetic discrimination, confidentiality, and concerns about the eventual advent of mandatory genetic screening. Regulations offered some protections against these fears. However, these ethical questions will remain a challenge for 21st century society.[57]

Hormone Therapies

Research on the role of hormones in the body, including the female hormones *estrogen* and *progesterone*, began before World War II. By the late 1930s, synthetic forms of estrogen had been developed. One, diethylstilbestrol (DES), was commonly prescribed to pregnant women to prevent miscarriage. Although DES did not prevent miscarriage, it was given to millions of pregnant women. In the early 1970s, evidence indicated that the sons and daughters of DES users had unexpectedly high rates of vaginal, cervical, and testicular cancers as well as other reproductive health problems. DES use was discontinued, but its health consequences may linger well into the 21st century.

Research on female hormones in the 1940s and 1950s also led to the development in 1960 of the birth control pill. It was first approved, not as a contraceptive, but as a treatment for menstrual cramps, irregular periods, and infertility. This pill used a combination of estrogen and progesterone to suppress ovulation, fertilization, and implantation. New lower dose forms of the birth control pill were produced during succeeding decades, and the pill remained the most commonly used reversible form of contraception through the end of the century.

In 1966, a best-selling book entitled *Feminine Forever* extolled the virtues of estrogen therapy as a solution to the "tragedies" of menopause and aging. By 1995, 38 percent of post-menopausal women were using hormone replacement therapy (either estrogen alone, or combined with progesterone). Numerous research studies were investigating the risks and benefits of these therapies.[58] Environmental health researchers were also studying the health effects of both natural and man-made hormones present in the environment on reproductive health, disease risk, and treatment for diseases such as breast cancer.
(Time capsule items: Estradiol/norethindrone transdermal system; estradiol transdermal system patch.)

Other hormones were also included in the search for a fountain of youth during the late 20th century. Selected hormonal supplements, not regulated by the Food and Drug Administration, were touted as helping to prevent aging, increase energy and muscle tone, and make people feel and look younger. These supplements included DHEA (dehydro-epiandrosterone), human growth hormone, melatonin, and testosterone.

Sexually Transmitted Diseases

Women are biologically more susceptible to sexually transmitted diseases (STDs) and their consequences than are men. Yet, for much of the century, public health campaigns about STDs were aimed at men. Compared to its European counterparts, the United States had much less success in lowering the rates of STDs in the 20th century.[59] Progress was hampered by the inadequate training of health care providers to recognize and treat STDs. Investment in prevention programs and STD services was not a priority. Taboos related to sexuality, especially for women, restricted open discussion of STDs. Thus, many Americans remained reluctant to discuss their sexual history with their partners, even within marriage. Consequently, both public and private awareness about the prevalence and variety of STDs remained low throughout the century.[60] By the 1990s, STDs accounted for 5 of the 10 most common reported infectious diseases in the United States.[61] These diseases included chlamydia, gonorrhea, AIDS, syphilis, and hepatitis B.

Human immunodeficiency virus (HIV), the deadliest of the STDs, emerged during the 1980s, predominantly among homosexual men. For years, HIV/AIDS was regarded as purely a gay men's disease, and this view was reflected in research, public education, screening, and treatment efforts. By the end of the century, however, women represented 30 percent of new HIV infections. This increased risk to women was attributed to heterosexual contact with infected men and intravenous (IV) drug use. In the mid-1990s, evidence indicated that screening and treatment for pregnant women who were HIV-positive could greatly reduce perinatal transmission of the virus. HIV

screening programs were widely implemented as part of prenatal care, but efforts to reach non-pregnant women were not as successful.

In the 1990s, AIDS was a leading cause of death among women ages 15–35. Multi-drug therapies to treat AIDS reduced death rates and slowed the process by which HIV progressed to AIDS. A vaccine to prevent HIV transmission was being tested at the end of the century. However, the toll of this disease on women and their children remains a serious challenge for the next century since AIDS has reached epidemic status in many parts of the world. (Time capsule item: A Guide to Clinical Care of Women with HIV: 2000 Preliminary Edition.)

AIDS (acquired immunodeficiency syndrome) leaves the body vulnerable to a host of life-threatening illnesses. There is no cure for AIDS, but treatment with antiviral medication can suppress symptoms. Pictured, an AIDS prevention poster courtesy of the Centers for Disease Control and Prevention, U.S. Department of Health and Human Services, Atlanta, Georgia.

Mental Health

Historically, people with mental illnesses were largely cared for at home, often hidden away by relatives. In the early 19th century, as more people began to live in crowded cities, asylums were created to house and care for the mentally ill, away from the rest of society. Reformers sought to improve the treatment of the mentally ill and protect them from abuse. Starting in the 1950s, there was a widespread movement to shift the care of the mentally ill from institutions to community-based care. This de-institutionalization movement saw its heyday in the 1980s when many mentally ill individuals were moved out of institutions. The number of state and county mental institutions dropped from a high of about 560,000 in 1955 to well below 100,000 by the 1990s. However, the community-based services that were to have been in place to take care of these individuals were often non-existent or inadequate. Many ended up homeless and without access to needed services.[62]

Early in the 20th century, mental illness in women was traditionally regarded as a form of hysteria, and not generally in the purview of medicine. Medical treatments that did exist for mental health problems often focused on removal of reproductive organs. By the late 20th century, mental health specialists recognized that not only did women truly experience mental illnesses, but they were more at risk for major depression and anxiety disorders than were men. Nonetheless, these and other mental disorders have continually been marked by enormous social stigma. They have long been regarded as signs of personal weakness rather than as a disease.
(Time capsule items: Depression is a Treatable Disease; Depression Disorders in Women.)

While public understanding of what constitutes mental illness increased considerably over the course of the century, the degree of fear and stigma associated with it remained high.[63] As a result of this

stigma, many people with mental illness refrained from getting help for their condition, in spite of an increasing array of effective treatments and medications. Researchers argue that the best hope for overcoming stigma and discrimination towards the mentally ill will be in the continued improvements in treatment for mental illnesses and increased public understanding of these diseases. As the century ends, the trauma histories of women have emerged to provide a focus on the secondary injury caused by mental health providers who are indifferent to or do not recognize the effects of trauma. Current efforts focus on ensuring that mental health facilities are trauma responsive.

In spite of remarkable progress, many challenges remain for the diagnosis and treatment of disease. Women's increased life expectancy over the century, ironically, exposed them to higher risks for chronic conditions associated with aging. New worries have evolved about the re-emergence of infectious diseases, once nearly eradicated, but now reappearing and increasingly resistant to available drugs. Concerns about access to appropriate treatments remain an unresolved issue. With the advent of telemedicine and robotics, however, comes the promise of reaching patients from greater distances, even from the comfort of their own homes. In addition, future advances in genomics, cellular biology, stem cell research, and other medical research fields may continue to increase the potential for diagnosing and treating disease.

CHAPTER 5: HEALTH EDUCATION AND COMMUNICATIONS

Early Public Health Education

In 1904, Mary Titcomb hired a horse and wagon to make book deliveries to drop-off points in remote corners of Washington County, Maryland. Later, in 1912, wagons were replaced by automobiles, like Titcomb's updated design (above). Photo courtesy of the Washington County Free Library, Hagerstown, Maryland.

From the first decades of the 20th century, public health advocates recognized the important role that women played as the entry-point for health information and practices in the family. In the first decades of the century, public health professionals and home economics agents visited mothers in their homes to offer help in managing the family's health, finances, and well-being. There were programs in neighborhoods to teach basic health and hygiene. These outreach efforts and programs brought to light a great unmet need. Women were craving information on how to take care of themselves and their families.[64] Thus, when the Federal Children's Bureau was established in 1912, one of its first tasks was the writing and distribution of two public health pamphlets directed at women health consumers: *Prenatal Care* (published in 1913) and *Infant Care* (published in 1914). Both were best-sellers. They continued to be expanded, reprinted, and well-received throughout the rest of the century. These publications were joined over the years by thousands of other public health education materials produced and distributed by the multiple health agencies of federal, state, and local departments of health.

Repealing the Comstock Law

The Comstock Law of 1873, officially the *Act for the Suppression of Trade in, and Circulation of, Obscene Literature and Articles of Immoral Use,* outlawed the distribution of information about birth control. Coupled with even stricter state laws in some cases, the Comstock Law was particularly hard on poor women who had no means of obtaining medical advice, devices, or treatment from private physicians. In the 1920s and 1930s, Margaret Sanger and other birth control advocates challenged the Comstock Law by disseminating birth control information and supplies. However, there was disagreement among the

Margaret Sanger (1879-1966), nurse and social reformer, opened the first birth control clinic in 1916 which was open only a short time before being shut down by police. Sanger was a leader in the struggle for free access to birth control. Photo courtesy of the Library of Congress, LC-USZ62-105457.

birth control advocates. Some wanted to lift all restrictions on the dissemination of birth control information. Sanger wanted to limit the distribution of this information and birth control devices to doctors only in order to ensure that women would receive individualized care and to guard against misinformation.[65] The advocates were not successful in their attempts to have the Comstock Law repealed. However, in 1936, Sanger and the National Committee for Federal Legislation on Birth Control won a judicial decision, *United States vs. One Package*, that exempted physicians from the Comstock Law restrictions on the dissemination of information on contraception.[66]

Truth in Labeling

The problem of quack remedies and misleading health information concerned many women's health advocates well before Margaret Sanger's time. In the early 1900s, women reformers organized to support the establishment of a government organization to regulate the safety, efficacy, and touted benefits of foods and medicines. In 1906, Congress established the Food and Drug Administration (FDA). It regulated food and drug safety and required the labeling of dangerous ingredients on all medications. In 1938, the FDA's authority was broadened to include the regulation of cosmetics and medical devices. Rules regarding drug safety were strengthened. Companies were required to show that their drugs were safe before they were put on the market. They were also required to list all of a drug's ingredients on its label.[67]

In the late 1960s, women's health advocates raised public awareness about the potential health risks associated with the birth control pill. The FDA responded by creating the first pamphlet of drug information that was written for consumers and inserted into each drug package. It explained the potential risks and benefits associated with the use of oral contraceptives. This information was followed in 1980 by an insert in boxes of tampons, warning of the risks and symptoms of toxic shock syndrome. Food labels were developed and standardized over the second half of the century to show the ingredients and nutritional contents of packaged foods.

Women-led Education Efforts: The Cancer Example

Female audiences and women-led education efforts were important venues for the dissemination of health information, even in the first decades of the 20th century. There were numerous health arenas in which women represented an important force in health education. Examples included anti-tobacco advocacy, birth control and reproductive rights, maternal and child health, migrant health issues, environmental health risks, mental health advocacy, and cancer awareness.

Consider the cancer awareness example: In 1913, the word *cancer* was rarely spoken in public, and it was omitted from obituaries. The *Ladies Home Journal* launched one of the first public discussions of the disease in an article entitled "What Can We Do About Cancer?"[68] The same year, the American Society for the Control of Cancer—the future American Cancer Society—was formed. It offered a public reading room with information on cancer symptoms and available treatments.
(Time capsule items: Mini-Breast Teaching Models; Ladies Home Journal magazines.)

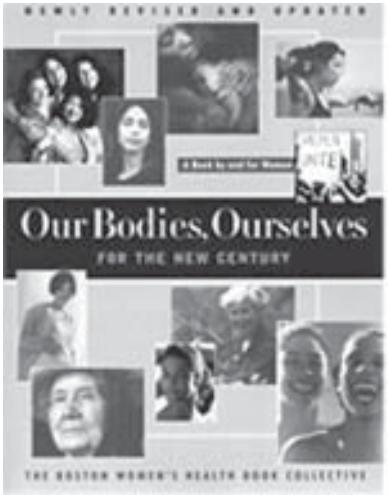
In 1936, the women who spearheaded efforts to educate the public about cancer formed the Women's Field Army. Members wore khaki uniforms and went into the streets to educate the public

about cancer and to raise money for cancer research. This organization was credited with helping to swell the ranks of people who were active in the fight against cancer from 15,000 in 1935 to 150,000 in 1938.[69] After World War II, medical techniques were developed to diagnose cancer at earlier stages. Philanthropist Mary Lasker raised over $4 million in the 1940s to fund cancer education and research. During the same time, the American Cancer Society launched a campaign citing the "7 Danger Signals of Cancer."[70]

Mary Lasker (1901-1994), a patron and health advocate. She and the Citizen's Committee for the Conquest of Cancer took out a full-page newspaper advertisement in the late 1960s to persuade President Richard M. Nixon to form a National Cancer Program. In 1971, President Nixon signed the National Cancer Act, expanding funding for cancer research in hope of finding a cure. Photo courtesy of the Lasker Foundation, New York, New York.

In the late 1960s, Mrs. Lasker and the Citizen's Committee for the Conquest of Cancer took out a full-page newspaper advertisement to persuade President Richard M. Nixon to form a National Cancer Program. Columnist Ann Landers appealed to her readers to write their Congress person in support of this program. More than 300,000 letters flooded the halls of Congress.[71] In 1971, President Nixon signed the National Cancer Act, expanding funding for cancer research in hopes of finding a cure. This effort was subsequently aided by First Lady Betty Ford who bolstered cancer awareness in 1974 when she publicly discussed her personal battle with breast cancer. In the 1980s and 1990s, breast cancer advocates reached unprecedented levels of success in their efforts to educate women about breast cancer, to lobby Congress for breast cancer research, and to elevate women's health to the top of the public health agenda.

(Time capsule items: Cancer Facts for Women; Colon and Rectal Cancer: Treatment Guidelines for Patients.)



Our Bodies, Ourselves for the New Century reflects the vital health concerns of women of diverse ages, ethnic and racial background, and sexual orientations. Topics explored range from living a healthy life, to relationships, sexuality, childbearing, and growing older, to dealing with the medical system and organizing for change. Photo courtesy of the Boston Women's Health Book Collective, Boston, Massachusetts.

The Self-Health Movement: Our Bodies, Ourselves

Perhaps the most widely recognized and successful health education publication of the century was the enormously successful book, *Our Bodies, Ourselves*, produced by the Boston Women's Health Book Collective. The first version, published in 1970, was little more than a collection of

mimeographed papers, printed and bound in an inexpensive newsprint edition. It was published by the New England Free Press and sold for 30 cents. The success of the book was its novel approach—a book written by women (who were not medically trained) for women. Its goal was to teach women about their bodies and recognize the value of their personal experiences with the health system. The format was reader-friendly. The tone was not condescending. The book challenged women to be more than passive recipients of information. It encouraged them to take an active part in their own health care and to be critical consumers. It also encouraged feedback from readers. Subsequent editions continued to evolve, incorporating readers' comments. It also moved beyond the early focus on reproductive health issues to a broad and highly diverse range of topics.[72, 73] By the end of the century, *Our Bodies, Ourselves* was a 700-page encyclopedia with over 100 authors. It has been translated into numerous languages. It spawned the production of many other self-health books that followed a similar model.
(Time capsule item: *Our Bodies, Ourselves for the New Century.*)

The self-health women's movement of the 1970s led to the formation of more than 250 formally identifiable groups that provided health education, advocacy, and direct service in all 50 states. They were joined by nearly 2,000 informal self-health groups and projects. A central feature of these groups was their focus on demystifying medicine for women and encouraging women to value the lessons of their own health experiences.[74]

Antonia Coello Novello, M.D. (1944-), the first woman and the first minority to be appointed as Surgeon General of the United States. Pictured, Dr. Novello being sworn in by Justice Sandra Day O'Connor in a ceremony at the White House on March 9, 1990. Also in the photo, President George Bush (center right), Secretary of the Department of Health and Human Services Louis Sullivan (far right), and Dr. Novello's husband and mother. Photo courtesy of the U.S. Department of Health and Human Services, Washington, D.C.

Diversity

Like much of the women's movement of the 1970s, the first editions of *Our Bodies, Ourselves* for the most part reflected the health concerns of white, educated women ages 25 to 45. Efforts to include the health needs, concerns, and questions of older women, non-white women, women with disabilities, lesbian women, migrant women, obese women, and other groups increased towards the end of the century. Numerous organizations formed in the 1980s and 1990s to promote awareness of health issues of special concern to diverse populations of women. *Our Bodies, Ourselves* increasingly incorporated diversity within its pages. Critics of the book noted a

perceived social bias in the text, which they claim was at odds with personal convictions of many American women. At century's end, many of the public education and communication efforts in women's health remained split along lines that separated sub-populations of women or distinct diseases and body parts.

Targeting Women as Consumers of Health Information

The year 1929 saw the publication of a popular book called, *Selling Mrs. Consumer*, written by a female home economics and marketing expert. Actually, Mrs. Consumer's roots stretched back to the end of the 19th century when women's roles as primary household consumers were first recognized. Shopping became a leisure activity in the late 1800s with the development of attractive department stores, shopping emporia, and arcades. Six new women's magazines were developed between 1885 and 1910, including *McCalls*, *Ladies Home Journal*, *Good Housekeeping*, *Delineator*, *Pictorial Review*, and *Woman's Home Companion*. They featured stories on food, fashion, home management, and health. Some of them also took editorial stands on health issues, such as the *Ladies Home Journal* article on cancer and its crusade against misleading health products and advertisements.[75] (Time capsule items: Health Magazine Supplement: 30 Foods That Fight Diseases; Newsweek Special Edition: What Every Woman Needs to Know; 2001: A Woman's Health Odyssey.)

From the 1950s onward, daytime radio and later television programming—much of it targeted at predominately female audiences—began to feature women's health topics. These included subjects such as incest, rape, mental illness, sexuality, and sexually transmitted diseases. In the 1980's, television and radio medical shows served as venues for the discussion of medical topics and medical procedures. Several television channels were devoted solely to medical programs and provided health information to the public. Women's magazines remained a major source of women's health information. The market for self-health books, launched in the 1970s, continued to grow throughout the rest of the century. In addition, during the 1980s, hospitals and health care organizations faced rising health care costs and increased competition for paying health care consumers. These challenges, coupled with the success of free-standing women's health centers, spurred many health organizations to create special women's centers and services, including health information services. In some cases, services and information were genuinely adapted to women's needs. In other cases, pre-existing ones were merely re-named "women's health" as a marketing ploy. Pharmaceutical companies, also tapping into the huge women's health market, began to launch women's information materials and programs to attract women to their products. By the end of the century, with the advent of the Internet, the availability of health information and advice for women had exploded. (Time capsule item: Strong Medicine: A Lifetime Original Series video.)

However, the problem that had plagued women's health advocates in the Progressive Era continued to worry those confronting the information superhighway of the 1990s: how to assure truth and accuracy in health claims and information sources. As the information age moves into the 21st century, both information and access to wide consumer markets will increase as Americans of all ages and races and both genders have greater access to healthcare information. Women's health advocates, government-based women's health organizations, and women's health interest groups will continue to work to ensure access to reliable health information and balanced presentations of debates, so women consumers can make educated choices.

CHAPTER 6: BODY IMAGE AND HEALTH

Changing Ideal Body Types Over the Century

In the 19th century, the fashionable middle- or upper-class woman artificially constricted her waist with a corset to meet the standard of beauty of the time. The stiff corset was reinforced with whale bone or metal and laced as tightly as possible to create an unreasonably narrow waist. It wreaked havoc on the health and natural physique of the women who wore it, causing shortness of breath, muscle atrophy, deformed ribs, limited mobility, indigestion, and the distortion and displacement of internal organs.

The pale, corseted beauty standard of the 19th century gave way during the first decade of the 20th century to a more natural shape and waistline, represented by Progressive Era women. This was also the period that saw the beginnings of mass-production of brassieres, developed as a healthier and more comfortable alternative to the corset. During the 1920s, the fashion standard did away with curves, calling for a slim and straight look exemplified by the flapper. Both dress styles and popular silent movie stars embraced a new emancipated look. Women cut their hair short and revealed their arms and legs for the first time. At the same time those newly bared arms and legs were expected to be smooth, firm, and hairless. The svelte figure called for a flat bosom, encouraging women to free their limbs but flatten their breasts with new binding brassieres. Moreover, the introduction of the bathroom scale, which coincided with this period, meant that women could monitor their weight more exactly.

During the first decade of the 20th century, corsets gave way to a more natural shape and waistline. This period also saw the beginning of mass-production of brassieres and girdles. Vintage 1946 magazine ad courtesy of Sandra Lowery, Office on Women's Health, U.S. Department of Health and Human Services, Rockville, Maryland.

The 1930s saw the return of the fuller bust and slender waist. By the 1940s and 1950s, women were wearing girdles and push-up bras or foam "falsies" to enhance their breast line. Slender legs also became fashionable in the 1940s as hemlines rose to save fabric during World War II. Following the war, women returned from jobs supporting the war effort to their domestic lives. Fuller shapes became the accepted norm for housewives and mothers. Actresses like Jayne Mansfield and Marilyn Monroe, with their full busts and rounded hourglass figures, epitomized a voluptuous female ideal of the 1950s. At the same time, the slender sophistication of the actress Audrey Hepburn presaged the ultra-slim look to come in the 1960s. (Time capsule item: Girdle.)

During the late 1960s and early 1970s, the feminist movement called into question female fashion stereotypes. Women began to promote a more natural look, shunning makeup, high heeled shoes, shaven legs, and brassieres. The self-health movement encouraged women to take control of their bodies. The Black Pride movement encouraged Black women to take pride in their darker skin and curly hair. However, the short hemlines of the 1960s and 1970s and the rising popularity of blue-jeans among women also drew increased attention to the size and shape of women's thighs and buttocks.[76] These fashions launched a new concern for women about their bodies and fueled an industry in cellulite-fighting creams, exercises to promote so-called "buns of steel," and liposuction to surgically remove fatty tissue.

From the late 1970s on, a new, more athletic look became popular as increasing numbers of women began to participate in sports and regular exercise. The passage of the Title IX legislation in 1972 began to give school- and college-aged girls access to more sports programs. Fitness centers and group exercise activities such as aerobics became popular among women. Adult women entered locker rooms for the first time since high school and discovered that they could be comfortable with their bodies in the presence of other women. Clothing styles became more close-fitting. Control-top pantyhose and other girdle-like undergarments made a comeback. Sports clothing made of lycra became a popular alternative to baggy sweat pants and sweat shirts.
(Time capsule items: Control top pantyhose; Exercise video tape.)

Florence Griffith Joyner (1959-1998), participated in the 1988 Olympic Games in Seoul, South Korea, and won gold medals in the 100- and 200-meter races and in the 400-meter relay; she took the silver in the 1600-meter relay. To date, she still holds the world record in the women's 100- and 200-meters. Her prowess, along with her glamour and eye-catching clothes, made "Flojo" a media sensation. Photo courtesy of Associated Press.

During the 1980s and 1990s, new role models appeared among world-class female athletes. They included figures such as track and field Olympian Florence Griffith Joyner, tennis stars Venus and Serena Williams, and soccer champion Mia Hamm. Female film and music stars, such as Madonna, also began to present a slender but muscular build.

However, in spite of the popularity of the athletic body type, the prevailing look among top fashion models not only remained ultra-thin, but it became increasingly anorexic in the last decades of the century. By the late 1980s, the average model looked like a waif and weighed 23 percent less than the average American woman.[77] In comparison, in the mid-1960s, she weighed only 8 percent less than the average woman. This unrealistic beauty norm contributed to high rates of self-consciousness

among women and dissatisfaction with their bodies. It led to increases in eating disorders and fueled a huge dieting industry.
(Time capsule items: Barbie dolls; "There's a Barbie Just for You" catalogue.)

Marketing the Image of a Female Ideal

In the early 20th century, advertising experts recognized the value of the female consumer as "chief purchasing agent" for the family.[78] By the 1920s, women had successfully gained new social rights, including the right to vote, and were using their new political power to influence public policy. In spite of their new rights and consumer savvy, women continued to be portrayed as what one feminist of the day, Frances Maule, referred to as the "angel idiot": youthful, feminine, and romantic.[79] In the 1920s, the tobacco companies used the image of the liberated suffragette to market cigarettes to women and appealed to women's concerns about weight control to sell their products. This image persisted through the end of the century.

By the end of the 20th century, little had changed regarding the idealized female images displayed in media and advertising. The "angel idiot" could acquire a laptop computer, a fancy car, or darker skin, but she was still more than likely to be youthful, slim, and well-dressed. One change that did occur in marketing efforts that were directed towards women, however, was the trend in targeting adolescents as a unique and select age group for advertising. Adolescence became more defined over the century. Teenage girls became more autonomous and economically independent from their parents. With improvements in nutrition and health, as well as increased obesity and larger body size, they also reached physical maturation at younger ages.[80, 81] Teenage girls became a prime audience for companies selling products directly related to the way girls looked and felt about themselves. Special lines of hair and skin products, makeup, and clothing were developed, especially in the last third of the century, to cater to girls at a time in life when they were struggling with establishing their identities and self-image.[82]
(Time capsule items: Girl Power! bag, hat, T-shirt, assignment book, and diary.)

It is important to note that although media images reflect and sustain idealized images of female beauty, women's changing preoccupation with their looks over the course of the century were also rooted in broader social and economic transformations.[83] The advent of photography at the end of the 19th century transformed portraits to real life, real-time images. The span, breadth, and speed of photographic images was further

Donna Shalala (1941-), an educator and women's advocate, had a strong public service record when she was appointed Secretary of Health and Human Services by President William J. Clinton in 1993. Her programs focused on health care and education issues, especially those involving children. In 1996 she launched the Girl Power! campaign to help encourage and empower 9-14 year old girls to make the most of their lives. Photo courtesy of the U.S. Department of Health and Human Services, Washington, D.C.

expanded and accelerated by the development of motion pictures, television, video, and the Internet during the 20th century. Mirrors became more prevalent in the early 20th century. They began to take over public spaces as well as private ones. Increased attention to hygiene, the development of the field of psychology, medical advances, and an increased life span also contributed to women's increased focus on their personal appearance as an expression of personal identity.

Cosmetic Surgery

One sign of women's growing concern over their physical appearance was in the development of cosmetic surgery. Modern plastic surgery is traced back to World War I when advances in anesthesia, antisepsis, and facial reconstruction were used to treat facial wounds. By the 1930s and 1940s, plastic surgery was being used to correct natural abnormalities, or the signs of aging. In the 1950s, cosmetic surgery began to be used to erase racial and ethnic traits, so women could conform to the dominant, white standard of beauty. Thus began the boom in the practice of "nose jobs" among Jewish and Italian women, eyelid operations among Asian women, and skin lightening procedures among African American women.[84] It was also the era that saw the beginning of breast enhancement procedures, the number of which rose steadily during the last third of the 20th century.

An obsession with youthful and slender looks helped feed a wide and growing cosmetic surgery industry. By the end of the century, major procedures such as liposuction to remove fat, laser peels to remove wrinkles and skin blemishes, chemical peels to make skin look more youthful, and face lifts were popular among more affluent women because they could get women closer to the ideals of youthful beauty. (Time capsule items: Renova; Botox for frown lines and crow's feet; Facial Option Treatments.)

Madame C.J. Walker—Sarah Breedlove—(1867-1919), was the first African American woman to become a millionaire. In 1905, she devised and manufactured a hair care and grooming system especially for African American women. She used her prominent position and wealth to oppose racial discrimination, and to support civic, educational, and social institutions to assist African Americans. Photo courtesy of Photographs and Prints Division, Schomburg Center for Research in Black Culture, The New York Public Library, Astor, Lenox, and Tilden Foundations, New York, New York.

Cosmetics

In the early 19th century, makeup was associated with women of low repute. Most women limited their use of cosmetics to creams and powders for their hair or complexion. In the 1910s and 1920s, silent movie stars and flappers began to wear heavy eye makeup and lip colors. By the end of World War I, women were buying makeup in large numbers.[85]

The early 20th century cosmetics industry was largely driven by women not only as consumers

but also as business owners. It was largely women, including Madam C.J. Walker, Annie Turnbo Malone, Elizabeth Arden, and Helena Rubinstein who launched the beauty business of the 20th century. They were self-made and highly successful. The stories of Malone and Walker are particularly interesting as they were both poor, African American women raised in the years following the Civil War. They offered beauty products to Black women as a way of improving their self-respect and economic opportunities. They also built economic opportunities for Black women into their businesses, promoting women as sales agents, hairdressers, and business owners. Each woman also created training centers and community-building organizations to advance the lot of African Americans.[86]

In the 1950s, advertisements for cosmetics began to replace advertisements for soap during popular daytime television and radio shows popularly known as *soap operas*. Lip and eye makeup were particularly prevalent in these ads. With the 1960s came the popularity of false eyelashes and "pop" art colors for makeup. In the late 1960s and 1970s, with the advent of the environmental movement, "natural" beauty products became popular and products that used endangered species in their formulas were banned.[87] In the last decades of the century, cosmetics represented a $20 billion industry. It included many products to fight wrinkles, gray hair, and other signs of aging in a youth-obsessed culture that often penalized women socially and economically for looking older.
(Time capsule item: Temporary color rinse.)

Eating Disorders

Another way in which women have historically tried to control their appearance has been through their control over what they put inside their bodies rather than on the surface. Throughout the century, women's concerns about their diets took on enormous proportions. By the end of the century, an estimated 5–10 million women had an eating disorder characterized by either self-starvation or binge eating with or without purging.[88] Numerous studies indicated that the rates of anorexia nervosa—a disease characterized by self-starvation, compulsive exercising, and purging—rose steadily from the 1930s to the 1990s.[89] Even women whose attempts to control their diet and weight did not reach the extreme level of eating disorders were highly obsessed with their food intake. By the late 1990s, Americans were spending $33 billion annually on weight loss products and programs.[90]

Yet fasting and other forms of self-starvation were hardly new to the 20th century. Both had been practiced from time immemorial for religious, spiritual, and other reasons. In the late 19th century, self-starvation or at least the appearance of having a light appetite became a common practice among middle- and upper-class women for reasons of fashion. This practice was grounded in a Victorian Era view that equated an appetite for food with an appetite for sex.[91]

Although eating disorders such as anorexia nervosa and bulimia were known in the early 20th century, they were not widely recognized until the 1970s. During the 1980s and 1990s, eating disorders were widely discussed, but they were primarily associated with white, middle-class, and educated girls and young women. Although there was some evidence linking eating disorders with depression and with a history of sexual abuse, these disorders were often associated with high-

achieving and driven personalities. Rates of eating disorders appeared to be lower among women of color. To some extent this reflected the different standards of beauty and ideal body types between white women and women of color.[92] Nonetheless, these cultural views competed with constant pressure to conform to white standards of beauty. Furthermore, health advocates in the 1980s and 1990s pointed out that non-white women's experiences with discrimination and abuse based on their race and sex were important, but neglected, contributors to disordered eating habits among women of color.[93] Thus, the prevalence of eating disorders among diverse populations of women may have been underestimated. (Time capsule items: Bodywise: Eating Disorders Information Packet; Mode Magazine; Weight Watchers pamphlets.)

The BodyWise Eating Disorders Initiative was part of the Girl Power! Campaign, conducted by the U.S. Department of Health and Human Services (DHHS), which reinforced and sustained positive values and health behaviors among girls ages 9-14. The DHHS Office on Women's Health implemented this initiative to address eating disorders—critical health problems affecting preadolescents. Photo of BodyWise Campaign Logo courtesy of the U.S. Department of Health and Human Services, Rockville, Maryland.

With the advent of the 21st century, the American population is expected to become increasingly multi-racial and more multi-ethnic and to include a greater proportion of older people. At century's end, one-half of the adult female population was overweight. The prevailing image of beauty will be increasingly out of step with a population that is growing older, fatter, and more diverse. The challenge will be to see if American women can engage support for more realistic definitions of image and beauty.

APPENDIX A
WOMEN'S HEALTH EVENTS OF THE 20th CENTURY

1906- The Food and Drug Administration Established: This agency is established by the Pure Food and Drug Act to regulate the safety of foods and medicines, giving women new support in protecting themselves and their families.

1908- Protecting Working Women and Children: The Supreme Court upholds the right of states to ensure the safety of working women and children who had not been included in labor union protection in *Muller vs. Oregon*.

1912- The Federal Children's Bureau Established: One of its first tasks is to write and distribute two public health pamphlets directed at women consumers: Prenatal Care and Infant Care. By century's end, women were able to access health information through thousands of self-help books, Internet web sites, and government publications.

President Franklin D. Roosevelt signing the Social Security Act of 1935. Also shown from left to right: Representative Robert Doughton (D-NC); Senator Robert Wagner (D-NY); Representative John Dingell, Sr. (D-MI); Unknown man in bowtie; Secretary of Labor Frances Perkins; Senator Pat Harrison (D-MS); Congressman David L. Lewis (D-MD). Photo courtesy of the Library of Congress. LC-US262-123278.

1913- The First Public Discussion of the Word Cancer: A Ladies Home Journal magazine article entitled "What Can We Do About Cancer?" was published. The American Society for the Control of Cancer is formed that same year.

1915- Radical Mastectomy Proven Effective for Breast Cancer: This disfiguring surgery, developed by Dr. William Halstead, becomes the standard of care for women with breast cancer.

1916- First Birth Control Clinic Opens: Margaret Sanger and her sister Ethyl Byrne opened a birth control clinic in Brooklyn, New York. The authorities shut it down ten days later under the Comstock Law. In those ten days, nearly 500 women came in for help and advice on contraception. The Comstock Law, passed in 1873, defined information on birth control and contraception as obscene and outlawed its distribution.

1921- The Sheppard-Towner Act: This law provides federal funding (with matching state funds) to reduce maternal and infant mortality. It was fiercely opposed by the American Medical Association (AMA), and some members of Congress as too socialistic. Some of the influential pediatricians in

the AMA who were in favor of the bill broke off from the organization and created the American Academy of Pediatrics. The law is allowed to lapse in 1929.

1929- Selling Mrs. Consumer Published: This popular book was written by a female home economics and marketing expert, and highlighted women's roles as the primary household consumers.

1933- Sodium Pentathol Introduced as Anesthesia for Childbirth: This drug replaces opiates and other sedatives that had a longer lasting effect on mother and baby, and meant that more women could have pain relief during labor and delivery.

1935- Title V of the Social Security Act: This maternal and child health legislation authorized grants-in-aid to states to fund maternal, infant, and child health programs, including services for crippled children.

1935- Cure Found for "Childbed" Fever: Sulfanomides were introduced as a cure for puerperal fever, contracted from unsterile conditions during childbirth and a leading cause of maternal death.

1936- *U.S. vs. One Package:* Margaret Sanger and the National Committee for Federal Legislation on Birth Control win a judicial decision (*U.S. vs. One Package*) that exempts doctors from the Comstock Law restrictions on dissemination of contraceptive information.

1938- The Food and Drug Administration's Authority Broadened: The agency is given authority to regulate cosmetics and medical devices.

1942- Planned Parenthood Named: The American Birth Control League changes its name to Planned Parenthood, over the objections of its founder, Margaret Sanger. Planned Parenthood was believed to be a more acceptable name to mainstream America.

1943- Emergency Maternity and Infant Care Program: This program provides free and complete maternity care to the wives and infants of men serving in the four lowest grades of the military during World War II. The program ended in 1949.

1950- The American Cancer Society Begins Promotion of Breast Self-exam: There is still no scientific proof by century's end, that it actually improves breast cancer survival rate.

1953- The Kinsey Report Published: Sexual Behavior in the Human Female is published by researcher Michael Kinsey, as a companion to the 1948 Report, Sexual Behavior in the Human Male. More than 5,500 interviews with women show that many enjoy having a sexual life. This provokes widespread controversy, and alters the perception of women's sexuality. Later analyses have questioned much of Kinsey's methodology.

1956- La Leche League Formed: This group is started by seven mothers to promote breastfeeding after it falls out of fashion in the 1920s. It is not until the year 2001 that the U.S. Department of Health and Human Services releases its first policy promoting breastfeeding, calling it the best source of infant nutrition.

1956- Dependents Medical Care Act: This program provided Government-sponsored health insurance (CHAMPUS) for the dependents of members of the Armed Forces.

1959- The Barbie Doll Created: This was the first popular doll to be shaped like a woman, with an impossible-to-attain figure. Little girls everywhere loved the doll, but critics claimed it encouraged girls to adopt unhealthy habits to stay unreasonably thin, and set an unrealistic standard of beauty for decades to come. In 1999, Barbie celebrated her 40th birthday, as popular as ever, without so much as a wrinkle or expanded waistline.

1960- The FDA Approves the Birth Control Pill: The Pill gives women unprecedented sexual and reproductive freedom. The controversy over its approval eventually leads to the first packaged insert that explains the risks and benefits of a medication. By the year 2000, it is still the most popular form of birth control.

1961- Worldwide Alert on Thalidomide: The efforts of a woman scientist, Frances Kelsey, M.D., Ph.D., led the FDA not to approve thalidomide for use in the U.S., saving countless numbers of babies from the severe deformities seen among babies in Europe. Worldwide alarm led to legislation in the United States in 1962 that gave the FDA new authority to require that drugs must be shown to be effective prior to approval, and also required manufacturers to report unexpected harm (adverse events).

1965- Birth Control Made Legal for Married Couples: In *Griswold* *vs.* *Connecticut*, the Supreme Court overturns one of the last state laws to prohibit the use of contraceptives by married couples.

1965- Medicaid and Medicare: Medicare is created as a national program to provide federal coverage for health services to individuals aged 65 and over, a population that is disproportionately female. Medicaid was passed as part of President Lyndon Johnson's War on Poverty and provides medical assistance to poor families with dependent children, low-income elderly, the blind, and people with disabilities. It was designed to be administered by each of the 50 states.

1965- Family Planning Funds: As part of the War on Poverty, the Office of Economic Opportunity makes available federal funding for family planning for low-income women.

1970- Our Bodies, Ourselves Published: This breakthrough book was produced by the Boston's Women's Health Book Collective. It is written by women (not medically trained) to teach other women about their bodies, and encourages them to be critical health care consumers.

1970- Medical Schools Sued for Gender Discrimination: In 1965, only 7 percent of medical students in the U.S. were women. The Women's Equity Action League sued most medical school in the nation to correct this inequity. By the late 1990's nearly half of medical students are women. Still, by the end of the century, only eight U.S. medical schools are headed by women deans.

1970- Title X Family Planning Funding: This law establishes a federally-funded program nationwide to provide family planning services to low-income women.

1971- The National Cancer Act Passed: This law, signed by President Richard M. Nixon, greatly expanded funding for cancer research.

1972- Title IX Revolutionizes Athletics for Women: Title IX of the Education Amendments of 1972 prohibits sex discrimination in all educational programs receiving federal funding.

1973- *Roe vs. Wade:* While a woman's right to abortion is not explicitly found in the Constitution, and while the practice of abortion is opposed by many Americans, the U.S. Supreme Court held in this landmark case that limiting a woman's right to terminate her pregnancy violates the Due Process clause of the 14th Amendment.

1974- The Food and Drug Administration Outlaws the Dalkon Shield: This brand of intrauterine device is ruled to be unsafe due to increased complications with pregnancies and a higher risk of pelvic inflammatory disease.

1976- Hyde Amendment: This amendment banned the use of Medicaid funds for abortion services, unless a woman's life is in danger. The law was broadened in 1994 to allow Medicaid coverage for abortion in cases of rape or incest.

1978- Pregnancy Discrimination Act: This law prohibited sex discrimination in employment on the basis of pregnancy, childbirth, or related medical conditions.

1979- Patricia Harris, an African American, is appointed as the first female Secretary of Health, Education, and Welfare. Later that year, Congress established a separate Department of Education and Harris' department became the Department of Health and Human Services. Harris had been a professor at Howard University Law School and a businesswoman before her appointment.

1980- Surgeon General's Report on Women and Smoking: This report documents the growing number of women smokers and warns that if the trend is not reversed, smoking related diseases in women will reach epidemic proportions. By century's end, the prophecy is realized. A new Surgeon General's Report on Women and Smoking, written in 2000 and released in 2001, reveals that since the release of the 1980 report, three million women have died prematurely from smoking related illnesses.

1981- Maternal and Child Health Services Block Grants: This law consolidated programs for maternal, infant, child, and adolescent health at the State level, and transferred funding directly to the states in a block-grant format.

1983- The Public Health Service's Task Force on Women's Health Established: This task force signifies a new level of federal commitment to women's health issues.

1983- The Komen Race for the Cure is Established: The Race for the Cure was established by Nancy Goodman Brinker after her sister, Susan Goodman Komen, died of breast cancer at the age of 36. The race raises money for breast cancer research, education, screening and treatment programs.

The five-kilometer race began as a single event in Dallas, Texas, and by century's end became a series of more than a hundred races in the U.S. and around the world, with 69,000 runners and walkers, raising three million dollars annually.

1983- Margaret Mary Heckler is named Secretary of the Department of Health and Human Services: She served 16 years in the United States House of Representatives as a Republican from Massachusetts. As Secretary, Heckler introduced a system of set rates for Medicare payments to hospitals. She also helped to win Congressional approval of a law that helped ensure payment of court-ordered child support.

1985- Lumpectomy Declared As Effective Breast Cancer Treatment: Studies are released that show lump removal combined with radiation therapy is as effective a treatment as mastectomy for many breast cancers.[94]

1986- New Policy on Women's Health Research: The National Institutes of Health (NIH), establishes a policy to increase participation in women's health research, but in 1990, an Institute of Medicine Report says NIH is not moving quickly enough to implement this policy.

1987- Lung Cancer surpasses breast cancer as the leading cause of cancer death in women.

1989- Women's Health Equity Act: This law, introduced by the Congressional Caucus for Women's Issues, calls for an increased focus on women's health through research, services, and prevention activities.

1990- Dr. Antonia Novello is Confirmed as the First Woman Surgeon General of the United States: She is also the first minority to be appointed to this position.

1990- Dr. Bernadine Healy is Confirmed as the First Woman Director of the NIH: She launched the Women's Health Initiative, a $625 million fifteen year study designed to learn more about the causes, prevention, and cures of diseases that affect women.

1990- Office of Research on Women's Health is Established: This office is established at the National Institutes of Health to stimulate and serve as a focal point for women's health research. Public hearings and a scientific workshop held at Hunt Valley, Maryland, produces the report "The National Institutes of Health: Opportunities for Research on Women's Health," which served as a blueprint for research at the NIH. Dr. Vivian Pinn was named as its first Director.

1990- Breast and Cervical Cancer Mortality Prevention Act: This Congressional act provided mammograms and pap smears to underserved women (including low-income women, older women, and minority women).

1991- Office on Women's Health Established: The Office on Women's Health was established at the U.S. Department of Health and Human Services during the presidency of George H.W. Bush, to better coordinate women's health activities, programs, and research throughout all of the federal health agencies. Dr. Agnes Donohue was its first director.

1992- Mammography Quality Standards Act: This law was designed to set national standards and a uniform system of quality control for mammography clinics across the country.

1992- Infertility Prevention Act: This Act provides additional funds to establish screening, treatment, counseling, and follow-up services for sexually transmitted diseases that could lead to infertility in women if left undiagnosed and/or untreated.

1993- Donna Shalala is Appointed as the Third Female Secretary of the Department of Health and Human Services. During her tenure, children's use of tobacco and drugs declined, teen pregnancies decreased, and child immunization rates soared.

1993- NIH Revitalization Act: This law requires the inclusion of women and members of racial and ethnic minority groups in all federally-funded population-based studies.

1993- Family and Medical Leave Act: This law provides employees with the right to take up to 12 weeks of unpaid leave during a 12-month period for family or medical reasons without the threat of having to leave their job permanently.

1993- National Action Plan on Breast Cancer (NAPBC) Established: This public-private partnership is established by President William J. Clinton in response to a national petition drive (2.6 million signatures) coordinated by the National Breast Cancer coalition. Its goal is to establish a comprehensive national plan to address the breast cancer epidemic. After providing leadership and sparking interest on issues from genetic testing to public education and clinical trials, the work of the NAPBC was handed over to private groups and the National Cancer Institute in 2000.

1994- Violence Against Women Act: This Act defined new federal crimes of violence against women and enhanced penalties to combat sexual assault and domestic violence.

1994- Offices of Women's Health established at the Food and Drug Administration and the Centers for Disease Control and Prevention.

1994- BRCA1 and BRCA2 Identified: The DNA sequences of two genetic mutations linked to breast cancer are discovered, leading to the possibility of genetic testing for high risk women.

1994- Women of Childbearing Years Can Participate in Clinical Trials: The FDA issues guidance lifting the ban on inclusion of women with childbearing potential from early clinical studies (Phase 1 and early Phase 2). This ban (which had been in place since 1977) had been a significant barrier to women's participation in clinical trials.

1996- National Centers of Excellence in Women's Health Designated: The DHHS Office on Women's Health designates the first six National Centers of Excellence (CoEs) at academic medical centers around the country. These are model "one-stop-shopping" health programs designed to integrate women's health research, clinical services and public education. By century's end, there are fifteen CoEs, and three National Community Centers of Excellence in Women's Health, with more planned for the future.

1996- Women's Health in the Medical School Curriculum Published: This first guideline for including women's health issues in medical school curriculum is published by the Office of Research on Women's Health, the Health Resources and Services Administration, and the DHHS Office on Women's Health.

1997- An Agenda for Research on Women's Health in the 21st Century: This document expands the Hunt Valley vision for women's health research in the broader context of cultural and ethnic origins, geographic location, and socioeconomic strata.

1997- FDA Office of Women's Health Launches "Take Time to Care Campaign": This three year effort reaches over 26 million Americans with the message "Use Medicines Wisely." Done in partnership with the National Association of Chain Drug Stores and more than 80 other participating organizations, this campaign targets the issue of preventing adverse drug reactions and medication errors.

1998- Gender Differences on Susceptibility to Environmental Factors Published: This Institute of Medicine Report encourages more research into how certain factors, such as genetics and hormones, affect susceptibility to environmental influences in health status.

1998- The National Women's Health Information Center (NWHIC) Launched: The DHHS Office on Women's Health launches the first commercial-free combined website and toll-free phone number for women's health information. By century's end, NWHIC was receiving more than four million "hits" and several hundred thousand "user sessions" a month.

1999- Contraceptive Coverage in the Federal Employees Health Benefits Program: This law was attached to the 1999 Treasury, Postal Service, and General Government Appropriations Bill to offer contraceptive coverage to women insured through the Federal Employees Health Benefits Program.

1999- Women's Health in the Dental School Curriculum Published: The first women's health curriculum recommendations for dental schools are released by the NIH Office of Research on Women's Health and the Health Resources and Services Administration.

2000- The Breast and Cervical Cancer Prevention and Treatment Act: This Congressional Act is designed to enable states to provide treatment services to eligible women through the Medicaid program.

2000- Exploring the Biological Contributions to Human Health: Does Sex Matter?: This Institute of Medicine report was initiated in 2000, and released in 2001. It concludes that "every cell has a sex" and that medical research should focus more on sex differences and determinants on the biological level.

APPENDIX B
DHHS WOMEN'S HEALTH TIME CAPSULE ITEMS

CHAPTER 1: SOCIAL AND CULTURAL FACTORS

1. *Selected bumper stickers and buttons supporting women's health issues
   Buttons - Women's Health Care is Primary, Salute to NIH Women, $.59, Never Another Battered Woman, I Support Women in Science, Roe vs. Wade
   Bumper sticker - Violence Against Women, There's No Excuse; Mothers Against Drunk Drivers Centers of Excellence in Women's Health map
2. Initiative to Eliminate Racial and Ethnic Disparities in Health flyer
3. Journal of the American Medical Women's Association Supplement: Cultural Competency and Women's Health in Medical Education
4. About Carpal Tunnel Syndrome pamphlet
5. Centers of Excellence in Women's Health map
6. Ms. Magazine devoted to domestic violence
7. Medicare and You and Medicaid brochures
8. Federal Employees Health Benefits Plans booklet

CHAPTER 2: PREVENTIVE HEALTH

9. *Forceps
10. Nutrition and Your Health: Dietary Guidelines for Americans
11. Healthy Heart Handbook for Women
12. Women and Smoking: A Report of the Surgeon General
13. Surgeon General's Report on Smoking and Health
14. Women's Guide to Breast Care pamphlet
15. *Mammogram
16. The Older We Get, the More We Need a Mammogram pamphlet
17. How to Do a Breast Self-Exam shower card
18. *Sunblock cream

CHAPTER 3: QUALITY OF LIFE

19. *Maxi pad
20. *Sanitary belt
21. *Tampon
22. Urinary Incontinence in Adults pamphlet
23. *Oral Contraceptive pills
24. *Selection of male condoms
25. *Female condom, information package, and picture book
26. What Everyone Should Know About AIDS pamphlet
27. What Everyone Should Know About Sexually Transmitted Diseases pamphlet
28. What Every Woman Should Know About Menopause pamphlet
29. Menopause: Journal Reprints

30. *_Beautiful Womanhood: Guide to Mental and Physical Development_ book
31. Women with Disabilities pamphlet

CHAPTER 4: DIAGNOSIS AND TREATMENT

32. Alzheimer's Disease: Unraveling the Mystery booklet
33. What's So Special About Women's Health newsletter
34. NIH Office of Research on Women's Health 10th Anniversary Program and Awards Book
35. Women's Health Initiative folders (English and Spanish versions)
36. *Sonogram of a fetus
37. Be Good to Your Baby Before It Is Born pamphlet
38. Pregnancy Calendar
39. *Estradiol/norethindrone transdermal system
40. *Estradiol transdermal system patch
41. A Guide to the Clinical Care of Women with HIV: 2000 Preliminary Edition
42. Depression is a Treatable Disease pamphlet
43. Depressive Disorders in Women pamphlet

CHAPTER 5: HEALTH EDUCATION AND COMMUNICATION

44. *Mini-Breast Teaching Models
48. Ladies Home Journal magazines
45. Cancer Facts for Women pamphlet
46. Colon and Rectal Cancer: Treatment Guidelines for Patients
47. *_Our Bodies, Ourselves for the New Century_ book
49. Health Magazine Supplement: 30 Foods that Fight Disease
50. Newsweek Special Edition: What Every Women Needs to Know
51. Women's Health Information Center - 2001: A Women's Health Odyssey booklet
52. *Strong Medicine: A Lifetime Original Series video

CHAPTER 6: BODY IMAGE AND HEALTH

53. *Girdle
54. Control top pantyhose
55. *Exercise video tape
56. *Barbie dolls
57. "There's a Barbie Just for You" catalogue
58. *Girl Power! bag, hat, T-shirt, assignment book, and diary
59. Renova pamphlet
60. Botox for frown lines and crow's feet pamphlet
61. Facial Option Treatments pamphlet
62. Temporary Color Rinse (hair dye)
63. Bodywise: Eating Disorders information packet
64. Mode Magazine
65. Weight Watchers pamphlets

MISCELLANEOUS

66. A Century of Women's Health: 1900-2000 booklet
67. DHHS Office on Women's Health 10th Anniversary Celebration and DHHS Time Capsule Dedication Program
68. *Signature Scroll
69. Annotated list of time capsule items
70. Photograph of DHHS Women's Health Time Capsule Planning Committee
71. *Women Rock! compact disc (CD)

*Indicates items other than pamphlets, brochures, booklets, or other paper-only products.

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Women's Health Desk